Supplementary figure S1

A

B

C

D

Histogram of Capillary Area Data

E

Histogram of Capillary Perimeter Data
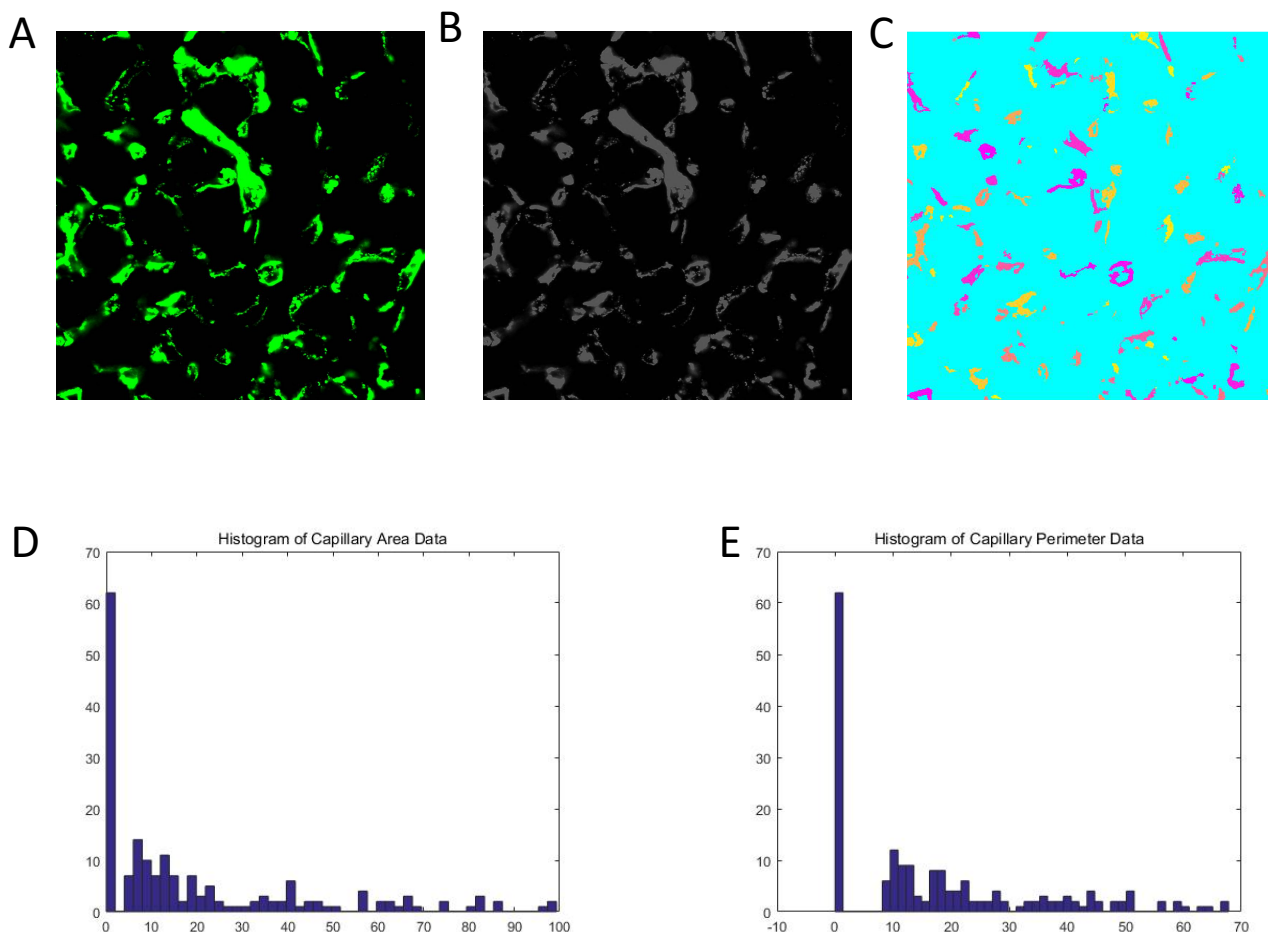
Supplementary figure S1: Capillaries were analysed by MATLAB script
Openning each green channel picture in Image J and splitting them into the grayscale (B).
this picture will be analyzed by the MATLAB script which automatically generates 4 images,
including the original image (A), the binary image with different colors (C), the histograms of
the area data and perimeter data (D and E). The MATLAB script also automatically generates
two excel sheets with number, area (μm^2) and perimeter (μm) of the capillaries for further
analysis by Graphpad software. The MATLAB script was set at a require value (cut-off values
$<4.9\mu m^2$ and $>100\mu m^2$ in our case) in advance. So the capillaries that do not meet the
requirements will be measured as zero.